

CLAIMS

1. An optical disc device comprising:

an actuator for moving an objective lens that irradiates an optical disc with a laser beam;

a traverse for holding the objective lens and the actuator so that the objective lens and the actuator are mutually movable;

a motor for performing step driving to advance the traverse for every unit travel distance;

an actuator driving means for driving the actuator on the basis of an error between the position of a track on the optical disc and the position to which the objective lens applies the laser beam, thereby to make the objective lens follow the track on the optical disc; and

a motor driving means for calculating the number of steps on the basis of the number of tracks from the position of the objective lens up to a target track to be accessed, and driving the traverse by the calculated number of steps;

wherein said actuator driving means calculates the number of tracks from the position of the objective lens up to the target track to be accessed, and driving the actuator so as to shift the objective lens up to the target track on the basis of the calculated number of tracks.

2. An optical disc device as defined in Claim 1 further

comprising:

a target number calculation means for calculating the number of tracks up to the target track on the basis of a current address where the objective lens is currently positioned, and the target track address;

wherein said motor drives the traverse by a predetermined number of tracks as one step of unit travel distance;

said motor driving circuit calculates the number of steps for driving the traverse by the motor, on the basis of the target number of tracks that is calculated by the target number calculation means, and the unit travel distance of the motor, and drives the traverse by the calculated number of steps; and

said actuator driving means calculates the number of tracks from the position of the objective lens up to the target track after advancing the traverse by the motor, and drives the actuator at track intervals so as to shift the objective lens by the calculated number of tracks.

3. An optical disc device as defined in Claim 1 further comprising:

a target number calculation means for calculating the number of tracks up to the target track on the basis of a current address where the objective lens is currently positioned, and the target track address;

wherein said motor drives the traverse by a predetermined

number of tracks as one step of unit travel distance;

said motor driving circuit calculates the number of steps for driving the traverse by the motor, on the basis of the target number of tracks that is calculated by the target number calculation means, and the unit travel distance of the motor, and drives the traverse by the calculated number of steps; and

said actuator driving means calculates the distance from the position of the objective lens after advancing the traverse by the motor, up to the target track, and drives the actuator so as to shift the objective lens by the calculated distance.

4. An optical disc device comprising:

an actuator for moving an objective lens that irradiates an optical disc with a laser beam;

a traverse for holding the objective lens and the actuator so that the objective lens and the actuator are mutually movable;

a motor for performing step driving to advance the traverse for every unit travel distance;

an actuator driving means for generating a first tracking drive signal on the basis of an error between the position of a track on the optical disc and the position to which the objective lens applies the laser beam, and applying the first tracking drive signal to the actuator to make the objective lens follow the track on the optical disc;

a ratio calculation means for shifting the objective lens at

track intervals over a predetermined number of tracks to obtain the amount of shift of the objective lens and the first tracking drive signal at this time, and calculating the ratio of the amount of shift of the objective lens to the first tracking drive signal;

a target number calculation means for calculating the number of tracks up to the target track on the basis of a current address where the objective lens is currently positioned, and a target track address to be accessed; and

a motor driving means for calculating the number of steps for advancing the traverse by the motor, on the basis of the target number of tracks calculated by the target number calculation means and the unit travel distance of the motor, and driving the motor by the calculated number of steps;

wherein said actuator driving means calculates the distance from the position of the objective lens after advancing the traverse by the motor, up to the target track, generates a second tracking drive signal on the basis of the calculated distance and the ratio, and drives the actuator to shift the objective lens up to the target track.

5. An optical disc device as defined in Claim 4 wherein said ratio calculation means calculates the ratio of the amount of shift of the objective lens, which amount of shift is obtained when rotating the optical disc with the traverse being fixed and

the objective lens following the track, to the first tracking drive signal.

6. An optical disc device as defined in Claim 4 wherein said ratio calculation means calculates the ratio of the amount of shift of the objective lens, which amount of shift is obtained when advancing the traverse by a predetermined distance with the objective lens being held, to the first tracking drive signal.